DIGITAL POTENTIOMETER INCLUDING PLURAL BULK IMPEDANCE DEVICES

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ABSTRACT OF THE DISCLOSURE

Embodiments of a digital potentiometer are disclosed that require lesser numbers of components than conventional digital potentiometers. A first string of elemental impedance devices, and at least one bulk impedance device, are provided between first and second reference terminals. The first string of elemental impedance devices is tapped by wiper switches. The at least one bulk impedance device has an impedance greater than an impedance of the first string. If desired, second and third bypassable impedance device strings also may be provided between the first and second reference terminals, with the impedance of the respective second and third strings being between the impedance of the first string and the impedance of one bulk impedance device. One or more dummy structures each including an impedance device in parallel with a permanently-on switch also may be between the first and second reference terminals to improve linearity.